

REMARKS

The examiner is thanked for the performance of a thorough search. In this response, the Specification has been amended, specifically the Abstract of Disclosure. No claims have been amended, cancelled or added. Hence, Claims 1-29 are pending in the application. Each issue raised in the Office Action mailed July 1, 2004 is addressed hereinafter.

I. ISSUES NOT RELATING TO PRIOR ART: ABSTRACT

The Office Action objected to the abstract of the disclosure because it exceeded the 150 word limit. Applicant has responded to the substantive requirements of the Office Action by amending the abstract of disclosure to comply with the 150 word requirement. Reconsideration is respectfully requested.

II. ISSUES RELATING TO PRIOR ART

A. REJECTION OF CLAIMS 1-4, 6-13 AND 18-29 UNDER 35 U.S.C. § 102(e)

Claims 1-4, 6-13, and 18-29 are rejected under 35 U.S.C. § 102(e) as being unpatentable over *Chen*, U.S. patent 6,567,380 (hereinafter "*Chen*"). It is respectfully submitted that Claims 1-4, 6-13, and 18-29 are patentable for at least the reasons provided hereinafter.

CLAIM 1

To establish a § 102(e) anticipation rejection all the claim limitations must be taught by the prior art. See MPEP 2131. *Chen* is missing several features of Claim 1. Therefore, *Chen* does not teach the method of maintaining version compatibility between computer program modules as recited in Claim 1.

The Office Action asserts that the step of "creating and storing information describing the interface at a plurality of times with a corresponding plurality of instances of data structures;" is expressly described in *Chen* (FIG 1 and FIG. 5 network layer reachability information field 508, message 500 and associated text). However, the text cited by the Office Action does not teach the

creation and storage of information which describes an **interface**. *Chen* describes a BGP update message that contains information for routing updates, not information regarding an interface. *Chen* neither expressly nor inherently teaches the creation or storage of information which describes an interface. Additionally, *Chen* does not teach describing an interface at a plurality of times with a corresponding plurality of **instances of a data structure**. Nothing in the BGP message described in *Chen* correlates to information regarding an interface with corresponding instances of a data structure at a plurality of times.

Further, *Chen* does not teach the step of “creating a mapping that associates a plurality of instances of a data structure with corresponding plurality of version numbers for a module”. The corresponding text of *Chen* referred to by the Office Action describes a routing table comprising route entries with a plurality of fields (FIG. 7, entry version number field 716, table version number 730, routing table 700 and associated text). The routing table described in *Chen* does not relate to a mapping associated with a plurality of **instances of a data structure**. The routing table relates to various route entries of a network, not instances of data structures. Furthermore, the entry version number field and the table version number described in *Chen* and cited by the Office Action are also not associated with **instances of a data structure**.

The Office Action argues that “automatically developing a second version number for a second module of the one or more interacting modules based on the plurality of instances of the data structure and the mapping;” is recited in *Chen* FIG. 8, neighbor version numbers and associated text. The text at this portion of *Chen* describes a neighbor version number that is associated with the neighbors of a router. However, this text in *Chen* does not teach automatically developing a second version number for a **computer program module**, nor does *Chen* teach that the neighbor version number is associated in any way with a plurality of **instances of a data structures** and mapping.

Furthermore, Claim 1 recites the step of “determining compatibility of the modules based on a first version number for a first module and the second version for a second module”. The Office Action suggests that this step is described in *Chen* FIG. 7, table version number. FIG. 8, neighbor version number, associated text and Col. 5 line 50 – Col. 7 line 30. Applicant respectfully disagrees because the version numbers referred to in *Chen* are only used as flags for determining when a router requires an update. In contrast the version numbers recited in Claim 1 are used to **determine compatibility** between **computer program modules** that interact through an **interface**. *Chen* neither expressly nor inherently teaches this limitation recited in Claim 1.

In view of the foregoing, Claim 1 includes one or more limitations that are not in any way taught expressly or inherently by *Chen*, and therefore Claim 1 is patentable over *Chen*.

CLAIM 8

Claim 8 includes features similar to Claim 1. With respect to a “mapping between a plurality of instances of a data structures which describe an interface at corresponding plurality of times and corresponding to a plurality of version number for a first module,” Claim 1 describes this feature in the context of creating and storing the descriptive information and mapping, while Claim 8 describes it in the context of **retrieving** the information stored in the mapping. *Chen* does not teach expressly nor inherently teach the creation, storage or **retrieval** of data which describes an interface at corresponding plurality of times and corresponding to plurality of version numbers for a computer program module. Therefore, Claim 8 is patentable over *Chen* for at least the reasons set forth herein with respect to Claim 1.

Claim 8 also recites “automatically developing a second version number for a second module of the interacting modules based on the mapping.” This limitation is similar to Claim 1 except that Claim 8 does not recite that a version number is based on a plurality of instances of the data structure. The Office Action refers to text in *Chen* which describes a neighbor version number that

is associated with the neighbors of a router. Claim 8 is patentable over *Chen* because the text in *Chen* does not teach “automatically developing a second version number for a second module of the one or more interacting modules based on the mapping.”

Furthermore, Claims 1 and 8 both recited the step of “determining compatibility based on a first version number for the first module and the second version number for the second module.” Again it is respectfully submitted that Claim 8 is patentable over *Chen* since Claim 8 includes one or more limitations that are not in any was taught by *Chen*.

CLAIM 25

Claim 25 describes a method for determining version compatibility between a first computer program module and a second interacting module that interact with the first module through an interface. The Office Action argues the that step of “obtaining a first versions number for a first module” is recited in *Chen* Fig. 7, table version number 730 and associated text. The table version number, cited in *Chen*, does not correlate to a version number for a computer program module. The table version number in *Chen* is used to indicate updates to the routing table. The routing table does not correspond to a computer program module which interacts with other modules through an interface. Furthermore, the version number described in *Chen* is not used to determine compatibility of computer program modules. Similarly, “Obtaining a second version number for the second module” as recited in Claim 25 does not correlate with the neighbor version number for the same reasons stated above with respect to Claim 1.

The remaining claim limitations of Claim 25 are similar to features of Claims 1 and 8 and therefore are patentable for the reasons set forth herein with respects to Claims 1 and 8. Because *Chen* does not expressly or inherently teach one or more claim limitations recited in Claim 25, reconsideration and withdrawal of the rejection of Claim 25 are respectfully requested.

CLAIMS 27, 28 AND 29

Claims 27, 28 and 29 include limitations similar to Claim 8, except that Claim 27 corresponds to a computer-readable medium and Claim 28 and 29 refer to system claims. It is therefore respectfully submitted that Claims 27, 28 and 29 are patentable over *Chen* for at least the reasons set forth herein with respect to Claim 8.

B. REJECTION OF CLAIMS 5, 14 and 16-17 UNDER 35 U.S.C. 103(a)

Claims 5, 14 and 16-17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Chen* in view of *Rekhter et al.*, “Networking Group, Request for comments (RFC): 1771”, March 1995 (herein after “*Rekhter*”). The rejection is respectfully traversed.

CLAIM 5

Claim 5 depends from Claim 1 and therefore includes all the limitations of Claim 1. As set forth herein with respect to Claim 1, *Chen* does not teach one or more limitations required by Claim 1. Therefore, a combination of *Rekhter* and *Chen* cannot provide all features or steps recited in Claim 5. Further, limitations recited in Claim 5 are not taught or suggested by *Chen* in view of *Rekhter* either taken alone or in combination.

Specifically, *Rekhter* does not teach “said step of describing the interface includes generating and storing in a first instance of the data structure data indicating signatures of a plurality of routines of the interface at a first time, wherein a signature of each routine includes a name of the routine and a type of the routine and parameters of the routine” as required by Claim 5. *Rekhter* does not teach indicating signatures of a plurality of routines of an interface at a first time. There is no mention or suggestion in *Rekhter* of storing any data structures which indicate routines of an interface. *Rekhter* teaches the BGP system routing protocol. The Office Action references *Rekhter*’s text describing Open BGP messages however, Open BGP messages are not data structures which indicate routines

of an interface, they are messages sent by each side of a connection to determine if the connection is open. It is therefore respectfully submitted that Claim 5 is patentable over *Chen* in view of *Rekhter*.

CLAIM 14, 16 AND 17

Claims 14, 16 and 17 all depend from Claim 8 and include all the limitations of Claim 8. Therefore, Claims 14, 16 and 17 are patentable over *Chen* for at least the reasons set forth herein with respect to Claim 8. Further, limitations recited in 14, 16 and 17 are not taught or suggested by *Rekhter* taken alone or in combination with *Chen*.

For example, Claim 14 features signatures of a plurality of routines of an interface and Claim 16 recites “wherein the plurality of routines comprises all the routines of the interface”. *Rekhter* does not teach or suggest signatures of routines associated with an interface. The Office Action argues that such a description is disclosed in *Rekhter* FIG. 3, memory 304 and associated text. However, the network interface adapters described in *Rekhter* are associated with interdomain routers coupled to memory and do not teach storage or describing routines of an interface for the purpose of software module version compatibility.

Additionally, the Office Action argues that the combined teaching of *Chen* and *Rekhter* (Specifically, *Rekhter* page 10 authentication information) teaches Claim 17, which recites “a plurality of routines comprising all the routines of the interface except routines not implement in the first module”. Applicant respectfully submits that neither *Chen* nor *Rekhter* taken alone or in combination suggest routines of an interface or implementation of computer program modules. *Rekhter* does not mention interface routines for computer program modules anywhere.

In summary, Claims 14, 16 and 17 are patentable over *Chen* in view of *Rekhter* since the references taken alone or in combination do not teach the specific limitations recited in Claims 14, 16 and 17. Reconsideration is respectfully requested.

C. REJECTION OF CLAIM 15 UNDER 35 U.S.C. 103(a)

Claim 15 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Chen* in view of *Rekhter*, further in view of *Muller et al.* U.S. Patent No. 6,188,659 (hereinafter “*Mueller*”). The rejection is respectfully traversed.

Claim 15 depends from Claim 8 and includes all the limitations of Claim 8. Therefore, Claim 15 is patentable over *Chen* for at least the reasons set forth herein with respect to Claim 8.

Additionally, Claim 15 recites limitations that independently render it patentable over *Chen*, *Rekhter* and *Mueller*. *Muller* does describe hashed values; however, *Muller* does not teach or suggest hashed values in the context of data indicating signatures of a plurality of routines of an interface at a first time. Additionally, *Muller* does not teach or suggest hashed values for indicating a signature of each routine of an interface.

Furthermore, MPEP 2141.01(a) establishes that in order to rely on a reference as the basis for rejection of an applicant’s invention, the reference must be in the field of applicant’s endeavor or, if not, then be reasonably pertinent to the particular problem with which the invention was concerned. *Mueller* relates to the field of CD-ROM’s which has nothing to do with **networking**. Additionally, nothing in *Mueller* is reasonably pertinent to the problem of maintaining compatibility of software core modules and interacting modules. Therefore, *Mueller* is nonanalogous art and should not be relied on as the bases for rejection.

Therefore it is respectfully submitted that *Chen*, *Rekhter* and *Muller* taken alone or in combination does not teach or suggest the limitations as recited in Claim 15.

D. REMAINING CLAIMS

The remaining pending claims not discussed so far are dependent claims that depend on an independent claim discussed above. Because each of the dependant claims includes the limitations

of the claims upon which they depend, the dependant claims are patentable for at least those reasons given above for the independent claims. Removal of the rejections with respect to the dependant claims and allowance of the dependant claims is respectfully requested. In addition, the dependent claims introduce additional limitations that independently render them patentable. However, due to the fundamental differences already identified for the independent claim, a separate discussion of those limitations are not included at this time.

III. CONCLUSIONS & MISCELLANEOUS

For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

A petition for extension of time, to the extent necessary to make this reply timely filed, is hereby made. If applicable, a law firm check for the petition for extension of time fee is enclosed herewith. If any applicable fee is missing or insufficient, throughout the pendency of this application, the Commissioner is hereby authorized to any applicable fees and to credit any overpayments to our Deposit Account No. 50-1302.

Respectfully submitted,

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Dated: September 29, 2004

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